

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

OCTOLASMIS DAWSONI, NEW SPECIES (CIRRIPEDIA:  
LEPADIDAE) FROM BATHYNOMUS GIGANTEUS

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The barnacle described here was encountered while studying the genus *Octolasmis* in the Gulf of Mexico. It was first called to my attention by C. E. Dawson, Marine Biologist of the Gulf Coast Research Laboratory, being upon a specimen of the huge, deep water isopod *Bathynomus giganteus* Milne-Edwards in the collection of that institution. It was also present upon a large number of specimens of the same host sent to me by Harvey R. Bullis, Jr., Fish and Wildlife Service, Pascagoula, Mississippi. I am much indebted to Mr. Dawson, after whom the species is named, and to Mr. Bullis for the specimens.

A survey of the species of the genus *Octolasmis* in the Gulf of Mexico will appear elsewhere.

***Octolasmis dawsoni*, new species**

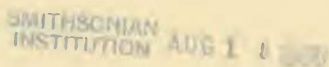
Figs. 1-6

*Holotype*: A specimen with well-developed ovaries; southeast of Pensacola, Florida, lat. 28° 30' N, long. 86° 11' W, 240 fathoms; collected by the Fish and Wildlife Service, M/V "Oregon," 11 March 1955; U. S. Nat. Mus. Cat. No. 104378.

*Paratypes*: Several specimens, same data as holotype, all from a single host specimen. Many specimens from numerous host specimens; south of the Dry Tortugas, 24° 11' N, long. 83° 21.5' W, 400 fathoms; collected by the Fish and Wildlife Service, M/V "Silver Bay" 8 June 1959. No specimens are fully mature, i.e., with eggs or nauplius larvae.

*Diagnosis*: Similar to *Octolasmis lowei* (Darwin, 1851), from which it is distinguished superficially by its smaller size, the brown color, and the apically notched tergum.

*Description*: The tergum of *O. dawsoni* (Fig. 2) is notched apically, and the umbo is almost centrally placed in young specimens and sub-terminal in more mature specimens. Fully matured specimens have not been encountered. In *O. lowei* the apical end is rounded and the small umbo is distinctly terminal (Fig. 1).



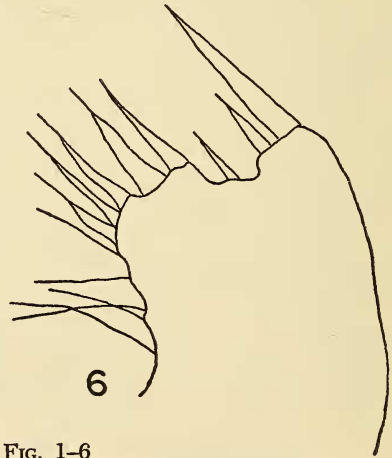
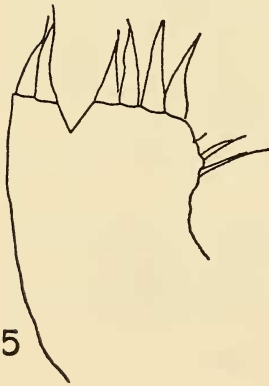
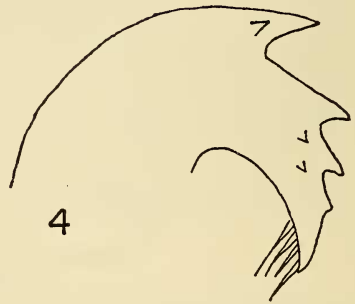
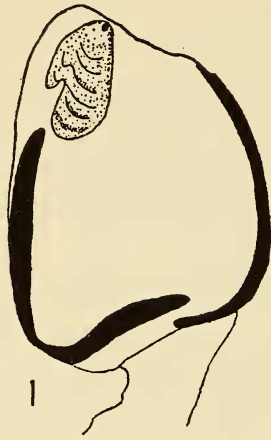


FIG. 1-6

The scutum and the carina do not offer any details of systematic importance, nor does the length of the peduncle. These features are generally emphasized in the description of species in this genus, but they seem based upon the examination of too few specimens. The mandibles (Fig. 4) have either 3 or 4 teeth (I think according to the maturity of the specimen), and apparently the teeth do not have ridges upon them. The mandibles of *O. lowei* (Fig. 3) have 4 teeth (the terminal point is not usually considered a tooth), and the teeth have ridges upon them that are brought out in KOH preparations. In KOH treated specimens, *O. dawsoni* shows hooks at the base of the teeth and *O. lowei* does not. These may be cuticular processes of the body surface in the vicinity of the mandibles. Various patterns of such hooks are present in other species of the genus and may be of specific value. The maxilla of *O. lowei* (Fig. 5) has the customary notch, with relatively few bristles or setae; *O. dawsoni* (Fig. 6) has a broader notch and more bristles or setae. The penis does not appear to be of taxonomic significance.

*Size:* Measurement of the length of the capitulum of the first 10 specimens encountered (for this purpose) gave an average length of 1.42 mm, with the range between 1 mm and 2 mm. For *O. lowei* a similar 10 specimens gave an average length of 2.39 mm, with the range between 1 mm and 3 mm. Possibly more mature specimens of *O. dawsoni* would approach the dimensions of *O. lowei*.

*Ecology:* This barnacle has been collected only from the ventral surface of the abdomen of a single host species.

*Summary of the characters that distinguish O. dawsoni and O. lowei:*

<i>O. dawsoni</i>	<i>O. lowei</i>
Living in deep water of Gulf of Mexico on <i>Bathynomus giganteus</i> .	Living in shallow water on <i>Callinectes</i> , <i>Libinia</i> , <i>Portunus</i> , and <i>Calappa</i> ; cosmopolitan.
Attached to the ventral surface of the abdomen of the host.	Attached to the gills and the branchial cavity of the host.
Average length of capitulum 1.42 mm.	Average length of capitulum 2.39 mm.
Light brown, almost salmon colored.	Cream colored.
Tergum notched apically.	Apex of tergum rounded.
Umbo almost centrally placed in young specimens and subterminal in more mature specimens.	Umbo smaller and terminal.
Mandibles with 3 or 4 teeth, without ridges, with hooks at base of teeth.	Mandibles with 4 teeth, with ridges on teeth, without hooks at base of teeth.
Maxilla with broad notch and more bristles or setae than in <i>O. lowei</i> .	Maxilla with notch and few bristles or setae.

LITERATURE CITED

Darwin, Charles. 1851. A monograph on the subclass Cirripedia. The Lepadidae; or, pedunculated cirripedes. London. Ray Society. xii+400pp; pl. 1-10.

EXPLANATION OF FIGURES

All figures are camera lucida outlines from KOH preparations mounted in Permout. The exact number of bristles or setae is problematical in such preparations.

Fig. 1.—*O. lowei*, whole specimen.

Fig. 2.—*O. dawsoni*, whole specimen.

Fig. 3.—*O. lowei*, mandible.

Fig. 4.—*O. dawsoni*, mandible.

Fig. 5.—*O. lowei*, maxilla.

Fig. 6.—*O. dawsoni*, maxilla.